Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A control ~~Control process~~ method for a wireless communications network, said network being composed of stations communicating with mobiles in downlink mode, ~~characterised~~ characterized in that said ~~network~~ control method includes for a given station ~~for a given mobile associated with a server station~~:

i) for a mobile served by the station,

i1) computation of a first elementary quantity taking into account the attenuation ($L_{v,mu}$) between each neighboring station for the mobile and the mobile, ~~between the mobile and each nearby station ($L_{v,mu}$)~~ and the limit of total power emitted by each ~~nearby~~ neighboring station ($P_{lim}(v)$)~~, and~~;

i2)~~ii)~~ the product of the first elementary quantity by a second elementary quantity taking into account the requirements, in terms of communication, ~~taking into account the requirements~~ of the mobile ~~vis-a-vis~~ vis-à-vis a server ~~its~~ station (ξmu') and the attenuation between the server station and the mobile ($L_{u,mu}$), which gives an elementary product ~~between the mobile and its station ($L_{u,mu}$).~~ ; and

ii) the control of the link between said server station and one or more mobiles served by the station based on a load indicator derived from the elementary products related to each of the mobiles.

2. (Currently Amended) ~~Process~~ A method according to claim 1, ~~characterised~~ characterized in that it additionally includes for a predefined set of mobiles including the mobiles served by a given station (u) ~~by said server station~~:

a) application of step i) ~~of steps i) and ii)~~ to each mobile in the set, which gives elementary products[[,]];

b) summation of the elementary products obtained at step a)[[,]]; and

c) comparison of a load indicator derived from the summation made in ~~of a sum resulting from~~ step b) to a load threshold relative to the limit [[on]] of total power emitted by the server station ($P_{lim}(u)$) to perform the control of step ii).

3. (Currently Amended) ~~Process~~ A method according to claim 1, ~~characterised~~ characterized in that step i1) includes for a given ~~nearby~~ neighboring station for the mobile:

i[[0]]11) division of the limit [[on]] of total power emitted by said ~~nearby~~ neighboring station ($P_{lim}(v)$) by the attenuation between the neighboring station (v) and the mobile ($L_{v,mu}$) ~~of the mobile vis a vis the nearby station ($L_{v,mu}$)~~[[,]]; and

i[[0]]12) multiplication of the value obtained at step i[[0]]11) by the orthogonality factor between the server station and said ~~nearby~~ neighboring station ~~(α_{uv})~~.

4. (Currently Amended) ~~Process~~ A method according to claim 3, ~~characterised~~ characterized in that step i1) includes:[[:]]

[[i0]]k1) application of steps i[[0]]11) and i[[0]]12) to each ~~nearby~~ neighboring station[[,]];

[[i1]]k2) summation of the values obtained at step k1[[i0]])[[,]]; and

[[i2]]k3) addition of the external noise [[(N)]] to the value obtained at step ~~i1~~k2), which gives said first elementary quantity for said given mobile.

5. (Currently Amended) ~~Process~~ A method according to claim 2, ~~characterised~~ characterized in that step c) includes computation of the difference between the limit [[on]] of total power emitted by the server antenna and the common channel power, which gives said load threshold.

6. (Currently Amended) ~~Process~~ A method according to claim 2, ~~characterised~~ characterized in that the load indicator is equal to the result of ~~step c) is applied to the value resulting from~~ the summation at step b).

7. (Currently Amended) ~~Process~~ A method according to claim 6, ~~characterised~~ characterized in that the mobiles have a fixed data rate demand, and ~~additionally in comprising~~ in that, if the comparison at step c) indicates that the load indicator ~~the sum~~ is greater than the load threshold, it further includes:

d) reduction of the number of mobiles in the predefined set of mobiles[[,]]; and

e) iteration of steps a) to c) applied to the reduced set obtained at step d).

8. (Currently Amended) ~~Process~~ A method according to claim 2, ~~characterised~~ characterized in that the mobiles have a fixed data rate demand, and in that the summation of the elementary products at step b) is performed step by step in a specified order and includes for a given initial value:

b1) addition of an elementary product, associated with a given mobile in the predefined set, to said initial value, which gives a ~~running~~ current sum[[,]]; and

b2) iteration of step c) applied to a load indicator equal to the current sum ~~to the running sum~~.

9. (Currently Amended) ~~Process~~ A method according to claim 8, ~~characterised~~ characterized in that step b) additionally includes, if the comparison at step b2) indicates that the load indicator ~~running sum~~ is below or equal to the load threshold, an iteration of steps b1) and b2) for the next elementary product, in the specified order, with an initial value taken as equal to the ~~running~~ current sum obtained at the previous step bl).

10. (Currently Amended) ~~Process~~ A method according to claim 9, ~~characterised~~ characterized in that step b) additionally includes, if the comparison at step b2) indicates that the load indicator ~~running sum~~ is above the load threshold, an interruption of the summation and denial of ~~access to~~ the server station access [[for]] to the mobile associated with the last added elementary product added and [[for]] to the mobiles associated with the following elementary products, in the specified order.

11. (Currently Amended) ~~Process~~ A method according to claim 8, ~~characterised~~ characterized in that summation of the elementary products is performed in ascending order of the elementary products.

12. (Currently Amended) ~~Process~~ A method according to claim 8, ~~characterised~~ characterized in that summation of the elementary products is performed in random order of the elementary products.

13. (Currently Amended) ~~Process~~ A method according to claim 8, ~~characterised~~ characterized in that summation of the elementary products is performed in an order specified as a function of predefined priorities between the associated mobiles.

14. (Currently Amended) ~~Process~~ A method according to claim 8, ~~characterised~~ characterized in that the initial value is null at the first iteration of step bl).

15. (Currently Amended) ~~Process~~ A method according to claim 2, ~~characterised~~ characterized in that the mobiles have a fixed data rate demand, and in that it additionally includes ~~access control~~ controlling access of a new candidate mobile to the server station. ~~"candidate" mobile.~~

16. (Cancelled)

17. (Currently Amended) ~~Process~~ A method according to claim 15, ~~characterised~~ characterized in that step [[b]]c) includes storage in memory of the value resulting from the summation.

18. (Currently Amended) ~~Process~~ A method according to claim 17, ~~characterised~~ characterized in that the access control additionally includes:

j1) iteration of step ~~steps~~ i) ~~and ii)~~ for said candidate mobile, which gives an elementary product associated with the candidate mobile[[,]];

j2) addition of this elementary product to the stored ~~sum~~ value[[,]]; and

j3) iteration of step c) applied to a load indicator equal to the result of ~~to the sum obtained at~~ step j2).

19. (Currently Amended) ~~Process~~ A method according to claim [[16]] 17, ~~characterised~~ characterized in that the new mobile is authorized to access ~~the access control includes authorisation to access~~ the server station ~~for the candidate mobile~~ if the comparison at step [[c]] j3) indicates that the load indicator ~~sum~~ is below or equal to the load threshold.

20. (Currently Amended) ~~Process~~ A method according to claim [[16]] 17, ~~characterised~~ characterized in that the new mobile is denied ~~the access control includes denial of~~ access to the server station ~~by the candidate mobile~~ if the comparison at step j3[[c]]) indicates that the ~~sum~~ the load indicator is above said load threshold.

21. (Currently Amended) ~~Process~~ A method according to claim 1, ~~characterised~~ characterized in that step i2[[i]]) includes computation of a quantity representing the requirements, in terms of communication, of the mobile ~~vis-a-vis~~ vis-à-vis ~~its~~ the server station (ξ_{mu}') from a threshold of the signal-to-interference-and-noise ratio (ξm_u') and the orthogonality factor between the server station channels (α).

22. (Currently Amended) ~~Process~~ A method according to claim 21, ~~characterised~~ characterized in that step i2 [[i]]) includes multiplication of the quantity representing the requirements, in terms of communication, of the mobile ~~vis-a-vis~~ vis-à-vis ~~its~~ the station (ξm_u') by the attenuation between the ~~mobile and its~~ server station and the mobile ($L_{u,mu}$), which gives the second elementary quantity.

23. (Currently Amended) ~~Process~~ A method according to claim 21, ~~characterised~~ characterized in that the threshold of the signal-to-interference-and-noise ratio (ξm_u) is computed from the bit rate (D_{bit}) assigned to the mobile.

24. (Currently Amended) ~~Process~~ A method according to claim 6, ~~23 taken in conjunction with claim 6, characterised~~ characterized in that the mobiles have a variable rate demand, and in that step il) initially includes:

i'1[[0]]1) computation of the signal-to-interference-and-noise ratio threshold (ξm_u) as a function of an initial bit rate value[[,]];

i'1[[0]]2) computation of the quantity ($\xi m_u'$) representing the requirements, in terms of communication, of the mobile vis-à-vis the server station as a function of the signal-to-interference-and-noise ratio threshold (ξm_u) obtained at step i'1[[0]]1)[[,]]; and

the ~~process~~ method additionally including, if the comparison at step c) indicates that the sum is greater than the load threshold, a modification of the initial bit rate value and an iteration of steps a) to c) for the new initial rate value.

25. (Currently Amended) A control ~~Control scheme~~ device for a wireless communications network, including stations communicating with mobiles, in downlink mode, said ~~network~~ device incorporating an elementary load calculator capable of ~~designed to compute~~ computing the load induced by a ~~given~~ mobile (m_u) on a ~~given~~ server station (u),

~~Characterised~~ characterized in that the elementary load calculator includes:

- a first function (PA1) ~~designed to compute~~ capable of computing a first elementary quantity taking into account the attenuation between ~~the mobile and~~ each ~~nearby~~ neighboring station for the mobile and the mobile ($L_{v,mu}$) and the limit ~~on the~~ of total power emitted by each ~~nearby~~ neighboring station ($P_{lim}(v)$),

- a second function (PA2) ~~designed to compute~~ capable of computing a second elementary quantity taking into account the communication requirements, of the mobile vis-à-vis the server ~~vis a vis its~~ station ($\xi m_u'$) and the attenuation between the station and the mobile ~~the mobile and its station~~ ($L_{u,mu}$),

- the elementary load calculator being capable of computing the product of the first elementary quantity by the second elementary quantity (PA3), which gives an elementary product representing the load induced by the mobile ($EDPAP_{mu}$),

and in that the device is capable of controlling the link between each station and one or more mobiles served by the station based on a load indicator derived from the elementary products related to each of the said mobiles.

26. (Currently Amended) ~~Scheme~~ A device according to claim 25, ~~characterised~~ characterized in that it is capable of computing respective elementary products for a predefined set of mobiles ~~associated with~~ served by a given ~~server~~ station.

27. (Currently Amended) ~~Scheme~~ A device according to claim 26, ~~characterised~~ characterized in that it additionally includes a summation function ~~interacting with the elementary load calculator, the summation function (Σ) being~~ capable of ~~summating~~ summing the computed elementary products ~~computed by the elementary load calculator, which gives a load indicator relative to said server station~~.

28. (Currently Amended) ~~Scheme~~ A device according to claim 27, ~~characterised~~ characterized in that it additionally includes a comparator (23) interacting with the summation function, the comparator being capable of comparing [[the]] a load indicator derived from the summation performed by the summation function ~~computed by the summation function~~ for the ~~a given~~ server station with a load threshold related ~~relative~~ to the limit of [[on]] total power emitted by the server station ($P_{lim}(u)$).

29. (Currently Amended) ~~Scheme~~ A device according to claim 27, ~~characterised~~ characterized in that it includes a threshold calculator ~~designed to compute~~ capable of computing the difference between the limit of [[on]] total power emitted by the server station ($P_{lim}(u)$) and the common channel power of the server station (P'(u)), which gives said load threshold.

30. (Currently Amended) ~~Scheme~~ A device according to claim 25, ~~characterised~~ characterized in that the first function (PA1) is capable of dividing the limit of [[on]] total power emitted by a given ~~nearby~~ neighboring station for the mobile ($P_{lim}(v)$) by the attenuation ~~of the mobile vis a vis the nearby~~ between the neighboring station and the mobile ($L_{v,mu}$), and of multiplying the value resulting from the division by the orthogonality factor

between the server station and said ~~nearby~~ neighboring station (α_{uv}), which gives an intermediate quantity.

31. (Currently Amended) ~~Scheme~~ A device according to claim 30, ~~characterised~~ characterized in that the first function (PA1) is capable of computing the value of the intermediate quantity for each ~~nearby~~ neighboring station for the mobile, ~~summating~~ summing the values of the intermediate quantities thus obtained, and adding the external noise (N) to the ~~value resulting from~~ result of the summation, which gives the first elementary quantity for said ~~given~~ mobile.

32. (Cancelled)

33. (Currently Amended) ~~Scheme~~ A device according to claim 27, ~~characterised~~ characterized in that it includes a load reduction function ~~designed to reduce~~ capable of reducing the number of mobiles in the predefined set of mobiles associated with the station, if the comparator indicates that the load indicator is above the load threshold.

34. (Currently Amended) ~~Scheme~~ A device according to claim 27, ~~characterised~~ characterized in that the mobiles have a fixed data rate demand, and in that it additionally includes an access controller to control access of a candidate mobile to the ~~a server~~ station ~~as a function of~~ depending on the result returned by the comparator.

35. (Cancelled)

36. (Currently Amended) ~~Scheme~~ A device according to claim 34 [[35]], ~~characterised~~ characterized in that the access controller is capable of authorizing the new mobile (m_u) to access to the station (u) ~~authorizing access to the server station for the candidate mobile~~ if the result returned by the comparator indicates that the load indicator is below or equal to the load threshold.

37. (Currently Amended) ~~Scheme~~ A device according to claim 34 [[35]], ~~characterised~~ characterized in that the access controller is capable of denying the new mobile access to the server station ~~denying access to the server station for the candidate mobile~~ if the result returned by the comparator indicates that the load indicator is above the load threshold.

38. (Currently Amended) ~~Scheme~~ A device according to claim 24 [[25]], ~~characterised~~ characterized in that the second function (PA2) is capable of computing a quantity representing the requirements, in terms of communication, of the mobile ~~vis-a-vis~~ vis-à-vis ~~its~~ the server station ($\xi m_u'$) from the threshold of the signal-to-interference-and-noise ratio (ξm_u) and the orthogonality factor between the server station channels (α).

39. (Currently Amended) ~~Scheme~~ A device according to claim 38, ~~characterised~~ characterized in that the second function (PA2) is capable of multiplying the quantity representing the requirements, in terms of communication, of the mobile ~~vis-a-vis~~ vis-à-vis its server station ($\xi m_u'$) by the attenuation between station and the mobile ~~the mobile and its station~~ ($L_{u,mu}$), which gives the second elementary quantity.

40. (Currently Amended) ~~Scheme~~ A device according to claim 38, ~~characterised~~ characterized in that the threshold of the signal-to-interference-and-noise ratio (ξm_u) is computed from the bit rate (D_{bit}) assigned to the mobile.

41. (Currently Amended) ~~Scheme~~ A device according to claim 40, ~~characterised~~ characterized in that the mobiles have a variable rate demand and in that it includes a load regulator, said regulator being capable of modifying the bit rate value assigned to the mobiles if the result returned by the comparator indicates that the load indicator is below or equal to the load threshold.